

RioTinto

M/035/0002  
M/035/0009  
M/035/0011  
M/035/0015  
M/045/0004

RECEIVED

JUN 08 2011

DIV. OF OIL, GAS & MINING

2010

**Kennecott Utah Copper  
Sustainable  
Development Report**



## An open letter to employees and the community

Kennecott employees have every reason to be proud of what we achieved in 2010. Our commitment to work safely and efficiently, combined with strong commodity prices, led to a successful year. This success will continue to allow us to reinvest in our operation, employees and the communities we call home.

At the forefront of our achievements is safety. Our employees and contractors finished the year by going 160 days without a lost time injury and achieved a historic low all injury frequency rate. These achievements demonstrate that we are making progress toward our ultimate goal of an injury-free workplace.

Our strong financial performance in 2010 will serve as a driver to help us secure investment approval for future projects. Since 1989, Kennecott has reinvested more than 40 percent of earnings back into the operation for projects like the construction of the Molybdenum Autoclave Processing facility, which received investment approval of \$340 million from the Rio Tinto Investment Committee in early 2010. It will also help in the coming years as we seek capital for the Cornerstone Project, which will allow us to continue to be a strong economic engine in the Salt Lake Valley by providing high-paying jobs, purchasing goods and services from local vendors, and paying taxes that contribute to the state's economy.

We continued to advance our efforts to improve our environmental performance through our idling reduction programs that reduce greenhouse gas and other air emissions in our fleet of vehicles and haul trucks. We were recognized for our efforts by the Utah Pollution Prevention Association with the *Outstanding Achievement in Pollution Prevention Award*.

We also made strides to provide cleaner sources of energy for our operation through the addition of a combined heat and power unit at our refinery that will supply 50 percent of the electrical needs of the plant. The system will allow us to increase operational efficiency, decrease energy costs, and reduce the emission of greenhouse gases while producing 6.2 megawatts of electricity.

Despite having a successful year in 2010, we understand the challenges that we face in the future and our responsibility to be good neighbors by operating safely, efficiently and responsibly. Our sustainable development commitment is built on environmental stewardship, social well-being, economic prosperity, and strong corporate governance, which will continue to drive our future business decisions.

As always, your input and feedback are instrumental to our continued success, and we welcome your thoughts. I encourage you – whether an employee, contractor or community stakeholder – to continue to engage with us and provide your input, which you can do online at [www.kennecott.com](http://www.kennecott.com).

Thank you for your continued interest in Kennecott, and please stay safe.



Kelly Sanders  
President & CEO  
Kennecott Utah Copper







## Environmental stewardship

### Haul truck idle management project

We are committed to continuously looking at ways to reduce the environmental impacts of our operation. One way we are making a difference is through pollution prevention efforts in haul trucks. For our efforts, we were recognized in 2010 by the Utah Pollution Prevention Association with the *Outstanding Achievement in Pollution Prevention Award* for our haul truck idle management project.

Using Lean Six Sigma business improvement methodology, the mine completed an idle management project designed to reduce engine idling time on 68 haul trucks, which reduced diesel fuel use, particulate matter and greenhouse gas (GHG) emissions.

The project lowered idle time by 30 percent by focusing on five opportunities that could be managed through training and improved maintenance practices. It also prevented the release of more than 550,000 tons of CO<sub>2</sub>e, saved 96,000 gallons of fuel, and saved more than \$200,000 in fuel costs.

### Compressed natural gas vehicles

A study was conducted in 2009 to determine whether a percentage of Kennecott's vehicle fleet should use compressed natural gas (CNG) as a fuel source. The initial study evaluated a variety of business and sustainable development impacts that included reliability, maintenance, safety, financial viability, and GHG emissions.

CNG technology was chosen for this project due to its lower GHG emissions, the low cost of CNG fuel, and the availability of the technology for installation in the type of vehicles needed. Kennecott also chose to use EPA certified conversion equipment because it has been thoroughly tested and conforms to the highest standards of operation.

To determine the feasibility of using CNG vehicles, a pilot test was initiated in 2010. The pilot test involves the conversion of five vehicles, the purchase of one CNG vehicle, and the installation of a CNG fueling station. Three of the vehicles will operate on natural gas only, while the other five will be bi-fuel vehicles that operate on

► *Environmental stewardship is at the heart of our commitment to sustainable development. Wherever possible, we prevent or otherwise minimize, mitigate and remediate any potentially harmful effects of our operation on the environment. It also creates and sustains our business value and reputation.*

*In 2010, we achieved record production levels, and along with that, saw an increase in energy consumption. This is why we set self-imposed environmental targets to drive continual improvement. Through our commitment and actions, we strive to be a leader in environmental performance by demonstrating good management of natural resources, reducing our environmental footprint, and exceeding community expectations for sustainable development.*

CNG and gasoline. Through this project, we will track fuel economy, maintenance problems and repair costs. If the pilot project is a success, we may increase the size of the CNG vehicle fleet.

We anticipate that the CNG pilot project will have a positive impact by reducing an estimated 9.3 tons of CO<sub>2</sub>e per year.

Kennecott received a \$25,000 grant to support the pilot project from the Utah Division of Air Quality's Clean Fuels and Vehicle Technology Grant and Loan Program.

### Combined heat and power

We are committed to researching and implementing additional ways of increasing power supply and energy efficiency throughout our operation. The new \$10 million 6.2 megawatt (MW) combined heat and power (CHP) system that was commissioned in December 2010 at our refinery is an excellent example of this commitment. The CHP system is more than 80 percent energy efficient compared to separate heat and power systems, which are estimated to be less than 50 percent efficient. The 6.2 MW CHP system produces enough electricity to power 6,000 average sized homes.

CHP, also known as cogeneration, is an efficient, clean and reliable approach to generating power and thermal energy from a single fuel source. The refinery CHP system is designed to meet the steam requirements of the refinery and provide up to 50 percent of the electrical needs of the plant. The steam produced by waste heat from this CHP system replaces steam that was previously supplied by a natural gas boiler system.

CHP technology represents an innovative approach to energy planning because the electrical power is being generated on site rather than at an off site power plant – an approach called “distributed generation.”

► More information on environmental stewardship is available in our full report at [www.kennecott.com](http://www.kennecott.com).





## Economic prosperity

### Annual earnings

Strong financial performance was achieved with earnings of \$1.3 billion in 2010. These earnings are closely tied to the progress we are making in safety, increased efficiency throughout the operation, and the benefit of strong commodity prices.

Our strong financial performance will serve as a driver to help us secure investment approval for future projects. Since 1989, Kennecott has reinvested more than 40 percent of earnings back into the operation.

### MAP project update

In 2010, the Rio Tinto Investment Committee approved a \$340 million investment to build the Molybdenum Autoclave Processing (MAP) facility. The MAP facility will be constructed in two phases. The first phase is currently under construction, with initial production anticipated in 2012 and full production by 2013. The first phase will allow us to process 30 million pounds of molybdenum to commercial grade quality. The second phase will allow us to process 60 million pounds of molybdenum annually and is scheduled for completion in 2015.

As part of the announcement made in 2010, the MAP facility will be powered, in part, by a 6.2 megawatt combined heat and power unit.

► We use our expertise to harness resources and create economic prosperity for Rio Tinto shareholders, employees, communities, government and business partners. Our continued success is based on the ability to secure access to people, supplies, land and capital, and make responsible investments in our future. Our ability to maximize shareholder return yields sustainable benefits for the local, regional and national economy.

### University of Utah economic study

Over the 108-year life of the Bingham Canyon Mine, Rio Tinto's Kennecott Utah Copper and our predecessors have invested billions of dollars to increase production and modernize our facilities. By doing this, we have provided the nation with needed metals, state and local governments with tax revenue, individuals and families with jobs and income, and scores of organizations with contributions that make our community a better place to live. No other single private operation in Utah has generated more production, exports, income and employment for as many years.

A study conducted in 2010 by the University of Utah's Bureau of Economic and Business Research showed that in 2009, Kennecott Utah Copper and other Rio Tinto support services directly employed 2,400 people and indirectly employed 14,800 people in Utah, while also contributing approximately \$900 million in jobs, local taxes and purchases from about 1,000 Utah area businesses.

Through our commitment to economic prosperity, we will continue to provide these benefits long into the future.

► More information on economic prosperity is available in our full report at [www.kennecott.com](http://www.kennecott.com).





## Social well-being

### Safety

Safety is a core value and an essential part of the culture at Kennecott Utah Copper. Kennecott's goal is to ensure that each employee goes home safe at the end of each day. This type of commitment and the investment of time, resources and training, resulted in excellent safety achievements in 2010.

- *Employees and contractors achieved an all-time record low all injury frequency rate of 0.69. This number surpasses the previous record low achieved in 2009*
- *Kennecott's refinery, Barneys Canyon, operating services, and tailings and water services groups completed the year without a recordable injury*
- *Kennecott ended 2010 by going 160 days without a Lost Time Injury (LTI)*
- *Kennecott's Bingham Canyon Mine and engineering services groups achieved more than 2 million hours worked without an LTI*
- *Kennecott received 14 safety awards from the Utah Safety Council for outstanding performance*

▶ More information on social well-being is available in our full report at [www.kennecott.com](http://www.kennecott.com).

▶ *We believe that our employees are our greatest asset. We are committed to providing a safe and healthy workplace where people can develop to the full extent of their abilities. We are committed to building enduring relationships with our people by treating them with fairness and decency at all times.*

*We also aim to build enduring relationships with our neighbors characterized by mutual respect, active partnership and long-term commitment. Over time, the trust we build by engaging in sustainable relationships will enhance our ability to hire and retain valuable employees, and foster positive relationships with stakeholders and local communities.*

### Community and education

We believe good relationships with our neighbors are fundamental to our long-term success. We actively partner with local communities by supporting a variety of civic organizations. We support a minerals and mining education program designed to educate the public about our philosophy of balancing society's need for metals with an environmentally responsible approach to mining. We also support broader education and training that is relevant to our business and builds alignment with the communities near our operation.

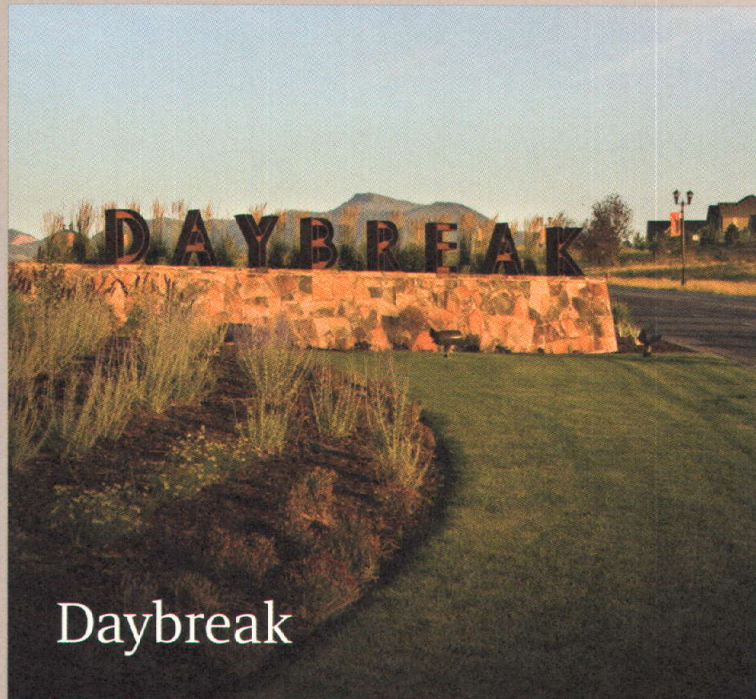
We have been long-time supporters of education by providing scholarships to hard-working students who have achieved academic excellence. We continued that tradition in 2010 through our scholarship programs. Last year alone, we contributed \$234,000 to students throughout the region and provided an additional 20 scholarships worth \$2,000 each to trade school students along with an opportunity to gain hands-on experience at our operation.

### Foundation and corporate giving

Kennecott has always been known for generously contributing to those less fortunate and 2010 was no exception. Through the Bingham Canyon Mine Visitors Center Charitable Foundation, we were able to contribute a record \$186,000 to support 106 Utah charities. Our foundation focuses on providing assistance to children, veterans, disabled, homeless and senior citizens throughout Utah.

In addition to our foundation giving, we actively support and partner with local charities, non-profit organizations and community groups by supporting projects that promote long-term mutual benefit to communities near our operations. We contributed \$5.3 million last year through corporate giving and community involvement to organizations focused on community and human development, public education and the environment. These contributions enhance and strengthen communities by supporting civic needs, job training, and literacy programs while enhancing awareness about biodiversity, climate change and environmental stewardship.





## Daybreak

### Birds at Oquirrh Lake

In early 2010, the Daybreak team approached the Great Salt Lake Chapter of the Audubon Society (GSLA) to determine their interest in visiting Oquirrh Lake to provide insight into how many birds visit each season. As a result of this invitation, the GSLA now conducts monthly bird counts at Oquirrh Lake. Birds from 59 different species enjoy the lake and its 25 acres of wetland habitat. This informal partnership is just one example of how we engage with our stakeholders and bring experts to Daybreak.

### Brookside Bridge recycled content

The Brookside Bridge was installed in June spanning the soon-to-be constructed Brookside Park. The bridge will enable traffic on 10400 South, a major arterial road, to flow uninterrupted through Daybreak.

The bridge is one of the largest precast arch-type bridges in North America. It contains 40 precast arches and is 80 feet wide, 20 feet high, and spans 84 feet. It will eventually cross a walking trail, road and Brookside Creek.

Brookside Bridge was built with 3.2 million pounds of recycled concrete and rebar. Since all builders and contractors in Daybreak are required to recycle their construction waste, an onsite stockpile of scrap concrete consisting mostly of damaged curb, gutter and sidewalk material was used for in-fill in construction of the bridge, which is slated to open in 2011.

► We have demonstrated a strong commitment to sustainable development, and Daybreak is a testament to that commitment. A portion of Daybreak's footprint had once been impacted by mining activities, which led to a period of unprecedented remediation; restoration and reclamation through the mid 2000s. Daybreak is now a sustainably developed community that balances the social, environmental, and economic needs of residents and local businesses. It is a place where important elements of life have been combined to allow residents to live, work, play and learn in a walkable, vibrant community that provides transportation options and integrates intelligent community design choices. Daybreak is also the largest master planned community in Utah, with 20,000 residential units planned at full build out.

### University of Utah breaks ground on health care center

In July, officials from University of Utah Health Care, Rio Tinto, Kennecott, Daybreak and South Jordan City broke ground on a 208,000-square-foot medical facility that will provide residents of southern and central Salt Lake County with convenient access to the University's primary, specialty and emergency health care services. The new building will include outpatient exam rooms, an outpatient surgery center, medical imaging services, space for community education, a pharmacy, a restaurant, and a fully staffed 24-hour emergency room. The center will also feature specialty services provided by the University's Huntsman Cancer Hospital, Moran Eye Center, Orthopaedic Center, and Neuropsychiatric Institute.

The center, which is located at 5200 West Daybreak Parkway (11400 South), is a major commercial project in Daybreak's South Station Village and is located adjacent to the Mid-Jordan South TRAX Station, the first of two planned TRAX Stations in the Daybreak community.

### Energy

According to the United States Green Building Council, buildings account for 39 percent of total energy use in the United States. As such, one of Kennecott's strategic objectives is to foster a low impact built environment – not only meeting the energy needs of today's generation but also reducing energy demand for future generations who may want to live and/or work in Daybreak. We focus on energy efficiency, demand management, and implementation of renewable and alternative energy options while seeking to influence energy policy where applicable.





# Governance

## Stakeholder review

Reporting and communicating on how Kennecott Utah Copper engages stakeholders is crucial to sustainable development. It is also part of our approach to building trust, credibility, transparency and openness. As part of this process, we ask stakeholders from community, business, government and regulatory bodies to review and comment on our sustainable development report each year.

## ISO

At Kennecott, we have ISO 9001:2008 and ISO 14001:2004 certified processes, which ensure our environmental and quality management systems are meeting the highest international standards of excellence.

## ISO 9001:2008

ISO 9001:2008 is an internationally recognized certification of Kennecott's product quality management system. The ISO 9001:2008 certification applies to the electro-refining of copper to create copper cathode.

We are committed to safely producing copper cathode that satisfies the quality expectations of our customers. We will accomplish this by complying with customer requirements and continually improving the quality management system.

► *We believe sound corporate governance and high ethical standards give us a competitive advantage in securing access to resources and skilled employees. This approach is as important to us as the technical and economic aspects of our business. Good governance in areas such as environmental performance, community relations, human rights, and employee welfare are vital to our long-term success. Our employees must abide by the same philosophies – accountability, fairness, integrity and transparency – set out in our global code of business conduct: The way we work.*

## ISO 14001:2004

ISO 14001:2004 is an internationally recognized certification of Kennecott's environmental management system. Our environmental management system was developed because we are committed to producing metals and minerals in a safe and environmentally responsible manner.

An environmental management system that meets the requirements of ISO 14001:2004 enables our organization to:

- *Identify and control the environmental impact of our activities, products and services*
- *Improve environmental performance*
- *Implement a systematic approach to setting environmental objectives and targets*



Environment	2007	2008	2009	2010
Significant spills [1]	0	0	1	3
Energy use (millions GJ)[2]	20.76	20.93	20.45	21.82
Greenhouse gas emissions - total (millions tonnes CO2-equivalent)	1.67	1.76	1.69	1.90
Freshwater consumption (mega liters)[3]	4,255	4,131	4,361	4,489
Land disturbed (hectares)[4]	5,262	5,154	5,131	5,121
Land rehabilitated (hectares)[5]	3,749	3,866	3,891	3,918
Waste generation - mineral (million tonnes)[6] [7]	137	137	177	165
Waste generation - non mineral (million tonnes)[8] [9]	0.019	0.008	0.008	0.022
NOX emissions (metric tonnes)	6,654	6,933	6,714	6,939
SOX emissions (metric tonnes)[10]	3,463	3,734	3,787	3,485

[1] Significant spills are classified as an incident that has been defined as either having an actual consequence classified as catastrophic, major or serious, or a maximum reasonable outcome classified as critical or high.

[2] Energy use and greenhouse gas emissions are based on total onsite usage and purchased power.

[3] Freshwater is defined as potable water or good quality raw water with total dissolved solids (TDS) less than 1,500 milligrams per litre, pH 5-9, and individual dissolved constituents (metals, anions, etc) at concentrations suitable for agricultural/livestock or irrigation use.

[4] This includes land disturbed for mining, processing and related activities that is not currently rehabilitated.

[5] This includes land disturbed for mining that was later rehabilitated, such as land that has been treated for final closure and now only requires care and maintenance. Generally, this land will have received some sort of surface treatment (e.g. stabilized, ripped, covered with topsoil and seeded) and may be re-vegetated. The objective is to manage land with minimum disturbance and to rehabilitate disturbed land as soon as practicable.

[6] Mineral waste is the portion of the mined geological resource that is not shipped from the operation as product and is not generated by processing activities.

[7] Mineral waste is now calculated using only mineral waste generated in the current year. Previous reporting periods

stated cumulative on site mineral waste. Prior year numbers have been restated to reflect this change.

[8] Non-mineral waste includes industrial and workshop wastes, scrap steel, tires, and municipal wastes. The increase in 2010 is due to smelter shutdown and increased projects and cleanups.

[9] Non-mineral waste is now calculated using only non-mineral waste generated in the current year. Previous reporting periods added current year waste to accumulated on-site waste. Prior year numbers have been restated to reflect this change.

[10] SOx reporting in 2007 and 2008 has been affected by the conversion to ultra-low sulfur fuel and a change in required regulatory reporting methodology.

## Social

Employees	1,815	1,878	1,877	2,100
Fatalities	0	1	0	0
Lost Time Injury Frequency Rate (LTIFR)[1]	0.4	0.3	0.39	0.18
All Injury Frequency Rate (AIFR)[2]	1.31	1.07	0.81	0.69
New cases of occupational illness (per 10,000 employees)	0	0	0	0
Corporate giving and community involvement (US\$)[3]	\$1,648,695	\$1,188,957	\$1,115,700	\$5,300,000
Charitable foundation giving (US\$)	\$138,000	\$143,000	\$130,000	\$186,000
Employee matching gifts (US\$)	\$22,148	\$25,464	\$0	\$11,770

[1] Lost Time Injury Frequency Rate is the rate of occurrence of lost time injuries per 200,000 hours worked.

[2] All Injury Frequency Rate is the rate of occurrence of all injuries per 200,000 hours worked.

[3] Corporate giving and community involvement figures are gathered from events, education, environment, scholarship, community and partnership giving. Prior year numbers do not include community numbers.

## Economic

Total sales (US\$ millions)[1]	\$3,539	\$2,609	\$2,368	\$3,327
Net profits (US\$ millions)[1]	\$1,649	\$998	\$818	\$1,342
Employee costs and benefits (US\$ millions)[1]	\$188	\$213	\$208	\$309
Other payments for goods and services:				
Local (US\$ millions)	\$438	\$513	\$430	\$559
State of Utah (US\$ millions)	\$50	\$56	\$47	\$125
National (US\$ millions)	\$635	\$535	\$439	\$403
International (US\$ millions)	\$62	\$178	\$47	\$70
Key production statistics[2]				
Copper production (in cathodes) (metric tonnes)	265,600	200,600	274,200	269,300
Gold production (troy oz.)	522,800	303,300	479,000	595,700
Silver production (troy oz.)	4,364,700	3,251,800	4,050,000	4,732,000
Molybdenum production (metric tonnes)	14,906	10,589	11,277	12,893

[1] Economic data for 2007 was updated to reflect updates to the Rio Tinto Annual Report.

[2] Key production statistics data for 2007 and 2008 have been updated from what was previously reported to reflect changes

in reporting methodology and to maintain reporting consistency.

## Governance

Environmental Management System (EMS) certification - ISO 14001: 2004	Yes	Yes	Yes	Yes
Health, Safety, and Environmental Quality Management System	-	Yes	Yes	Yes
Quality Management System (QMS) certification - ISO 9001: 2008	Yes	Yes	Yes	Yes
Quality safety interactions [1]	-	41,195	38,601	47,473
Climate registry (voluntary greenhouse gas reporting)	-	Yes	Yes	Yes

[1] Every employee is required to conduct a specified number of quality safety interactions (QSI). A QSI is a process where employees stop work to discuss what hazards are, how they are

being mitigated, and how safety can be improved in the future. The purpose is to keep safety first and help employees understand and mitigate all the hazards that are present in the

workplace. Data is unavailable prior to 2008.

**Rio Tinto**

Rio Tinto Regional Center  
4700 Daybreak Parkway  
South Jordan, UT 84095  
801.204.2000

## Feedback

At Kennecott, we appreciate and value your feedback. You can give your feedback by visiting our 2010 sustainable development report online.

